

The Resources Agency of California  
Department of Fish and Game  
Marine Resources Operations  
California State Fisheries Laboratory  
Terminal Island, California

Cruise Report 63-S-1 -- Exploratory  
Prepared by John L. Baxter

Vessel: N.B. SCOFIELD

Dates: Departed from San Pedro February 11, 1963.  
Returned to San Pedro February 25, 1963.

Locality: Southern California coastal waters from the northern Channel Islands to the California-Mexico boundary and offshore to Cortez Bank.

Purpose: 1. To make ecological surveys of representative areas.  
2. To explore offshore areas for trawling grounds.

Results: Stations were sought in 20, 50, 100, 250 and 500 fathoms for otter trawling. Midwater trawling was planned at each of the bottom trawling stations at the middle depth (half-way to the bottom) in each of six different areas. All tows were for 30 minutes. All fishes and invertebrates were identified, enumerated, weighed and/or measured. Samples of unidentified or unusual animals were saved for scientists who specialize on the different groups.

Santa Monica Bay Area

Stations were occupied in 100, 250 and 440 fathoms. Gear difficulties were experienced resulting in small catches of bottom fish. English sole (Parophrys vetulus) predominated in 100 fathoms while shortspined channel rockfish (Sebastes alascanus) splitnose rockfish (Sebastes diploproa) Dover sole (Microstomus pacificus) and sablefish (Anoplopoma fimbria) were taken in the 250 fathom bottom tow. No fish were taken in the 440 fathom bottom tow. Good catches of lantern fish (family Myctophidae) and lightfishes (family Sternoptychidae) were taken in two of four midwater tows.

Santa Barbara Island Area

Stations were established in 80, 100 and 250 fathoms. All 500 fathom areas scouted by fathometer were rocky. Curlfin turbot (Pleuronichthys decurrens) predominated in the two shallower bottom tows while shortspined channel rockfish, splitnose rockfish and blackgill rockfish (Sebastes melanostomus) were most abundant in the deeper bottom tow. A good catch of lanternfish was made in the deepest (125 fathom) midwater tow.

Although no significant poundages were taken in this area, much of it is trawlable and further exploration might prove valuable.

Santa Rosa Island Area

This area was scouted by fathometer for four days in 20, 50, 100, 250

and 500 fathoms. No trawlable areas could be found. Two attempts were made to bottom trawl in 50 fathoms; both resulted in badly torn nets.

#### Cortez Bank Area

The area was scouted by fathometer for two days. No trawlable areas were found.

#### Forty-mile Bank Area

This area was intensively scouted but no trawlable areas were found.

#### San Diego Area

Bottom trawls were made in 25, 50 100 and 400 fathoms. California halibut (Paralichthys californicus) and fantail sole (Xystreurys liolepis) were most abundant in the 25 fathom tow; English sole (185 pounds) Pacific sanddabs (Cithanchthys sordidus) (56 pounds) California pompano (Palometa simillima) (59 pounds) and pink seaperch (Zalembus rosaceus) (105 pounds) were abundant in 100 fathoms; greenspotted rockfish (Sebastes chlorostictus) predominated in the 100-fathom bottom tow; no fish were taken at 405 fathoms.

One of three midwater tows produced a significant catch. This tow was made at approximately 235 fathoms in 405 fathoms of water off La Jolla. It produced a fine collection of bathypelagic fishes, including lantern fishes, lightfishes, and deep-sea smelts (family Bathylagidae). Seventeen rare cephalopods, probably Vampyroteuthis infernalis were also taken in this tow.

Personnel: R. B. Mitchell, Vessel Captain  
J. L. Baxter, Biologist in charge  
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